

REMARKS

This Amendment is submitted in response to the Office Action dated March 27, 2006, having a shortened statutory period set to expire June 27, 2006, extended to September 27, 2006. Claims 146-177, 179-221, 256-279 and 283-302 are pending. Applicants have canceled Claim 283. No new matter has been entered by these amendments.

Claim 286

In section 7 of the present Office Action, Claim 286 remains rejected under 35 U.S.C. §102(e) as being anticipated by *Meier* (U.S. Patent No. 6,847,620), “as presented in the previous action dated December 19, 2005.” That rejection is respectfully traversed and reconsideration of the claim is requested.

Claim 286 recites, *inter alia*:

wherein the first access point is operable to recognize the SID of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of possible VLANs;

wherein at least a subset of the plurality of possible SIDs comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID)

The Examiner has argued that these elements of Claim 286 are shown by *Meier* at col. 7, lines 35-39. Therein, *Meier* teaches that inbound multicast frames from stations are sent to a unicast BSSID of the parent AP. Nothing in this teaching of *Meier* shows or suggests that the AP can receive multiple SSIDs, or, importantly, that each of such multiple SSIDs (assuming that the AP even has this capability) is “associated with a respective one of the plurality of possible VLANs.” There is no VLAN to SSID association as the Examiner contends. Reconsideration of the rejection of Claim 286 is respectfully requested.

Claims 146-177

In the present Office Action, Claims 146-177, 197-190, 192-210, 212-221, 256-279, 283-285 and 287-302 remain rejected under 35 U.S.C. §103(a) as being unpatentable over *Meier* in

view of *Delaney et al.* (U.S. Patent No. 6,937,574) as presented in the previous action dated December 19, 2005. Those rejections are respectfully traversed and reconsideration of the claims is requested.

With regard to the independent claims 146, 173, 256 and 289, the Examiner argues on page 5 of the Office Action dated December 19, 2005, that *Meier* does not explicitly state that each VLAN corresponds to a respective network service provider, but that *Delaney* does explicitly disclose this feature by maintaining carrier virtual LANs that customers may utilize by subscribing to services provided by a network service provider. Therein, *Delaney* is cited at col. 1, lines 55-col. 2, line 23. In the Office Action dated March 27, 2006, *Delaney* is cited at col. 14, lines 22-44 for this proposition. The Examiner states “*Delaney* clearly teaches each ISP router having its own dedicated VLAN identifier space.” (page 4 of the present Office Action). Applicant respectfully submits that the Examiner has erroneously interpreted an ISP as equivalent to a NSP.

As is well understood by those skilled in the art, an ISP (Internet Service Provider) is an organization that provides access service to the Internet. In contrast, a Network Service Provider (NSP) is a business organization that sells bandwidth or network access by providing direct backbone access to the Internet, and usually access to its network access points. *Delaney* makes a clear distinction between the two in the specification of the ‘574 patent. As *Delaney* shows in Figure 1, an NSP Network 10 provides the access switches 12, core switch 16, transmission facilities 14 and access links 22 to customer LANs 20. On top of the NSP Network 10, *Delaney* builds the carrier virtual LANs (CVLANs) (see col. 7, lines 22-33). At the cited section of *Delaney* at col. 14, *Delaney* clearly describes a single network service provider implementing the invention.

Delaney describes, throughout col. 14, a single network operator. For example, *Delaney* states “the NSP Network 10 has one VLAN identifier space for each distinct CVLAN.” (col. 14, lines 40-41; emphasis added). Each of the ISP Routers 300, 302 may share a VLAN identifier space with one or more other routers belonging to the same ISP or have its own dedicated VLAN identifier space. *Delaney* further goes on to state “the NSP must establish an association between each customer VLAN requiring ISP router access and a unique VLAN in each ISP

router VLAN identifier space. This association requires a 3-way agreement between the customer, the NSP and the ISP.” (col. 14, lines 45-49; emphasis added).

On page 4 of the March 27, 2006 Office Action, the Examiner insists that *Delaney* “clearly states that each ISP participates in one VLAN identifier space” at col. 14, lines 33-44, the Examiner implying that there should be more than one ISP in the NSP network 10. Applicant respectfully submits that nothing within col. 14 suggests that more than one NSP and one ISP are involved in allocating or implementing each distinct CVLAN. Instead, *Delaney* clearly states “each ISP router 300, 302 participates in only one VLAN identifier space.” (col. 14, lines 36-37). A “router” having its own VLAN space is not what is claimed in the independent claims cited above. As recited in exemplary claim 146, there is recited “each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from a plurality of network service providers.” Even assuming *arguendo* *Delaney* implies multiple ISPs, *Delaney* is clearly only describing a single NSP. The present claims recite a plurality of network service providers. *Delaney* describes creating multiple virtual LANs for multiple customers, but does so within the context of a single NSP. Consequently, Applicants respectfully request reconsideration of the rejection of the above claims.

With respect to exemplary independent Claim 174, multiple features are not shown or suggested by the prior art. First, Claim 174 recites, *inter alia*:

wherein each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from among a plurality of network service providers;

For the reasons given above with respect to Claim 146, Applicants respectfully submit that neither *Meier* nor *Delaney* shows or suggests that multiple VLANs correspond to different respective network service providers, as is recited in independent Claim 174.

Second, Claim 174 further recites, *inter alia*:

wherein the first wireless access point is operable to select from among the plurality of possible network service providers based on the indicated VLAN to provide network access to the portable computing device.

Nowhere does *Meier* or *Delaney* show or suggest a plurality of possible network service providers from which an access point can select. On page 14 of the December 19, 2005 Office Action, *Meier* is cited at col. 10, lines 45-54; however, that section merely describes VLAN-tagged multicast frames being transmitted to other VLAN APs, not to multiple network service providers. The Office Action also cites *Delaney* at col. 14, lines 33-44; but as has been explained above, nothing within *Delaney*, including the cited section, describes multiple NSPs (or multiple ISPs for that matter). Moreover, even assuming arguendo that multiple network service providers were suggested, nothing within *Meier* or *Delaney* shows or suggests an AP selecting from among multiple network service providers to provide the network access for the portable computing device based on identification information sent by the portable computing device indicating a VLAN of a plurality of possible VLANs. Therefore, for the reasons given above, Applicants respectfully request reconsideration of the rejections of the claims.

With respect to independent Claims 177, therein is recited *inter alia*:

wherein at least two of the plurality of possible VLANs is associated with a different respective network service provider from among a plurality of network service providers; and

For the reasons given above with respect to Claim 146, Applicants respectfully suggest that neither *Meier* nor *Delaney* shows or suggests a plurality of network providers, each being associated with a VLAN.

Moreover, independent Claim 177, further recites, *inter alia*:

wherein the wireless access point is operable to maintain an association between each of the at least two of the plurality of possible VLANs and the respective network service providers

There is nothing within *Meier* or *Delaney* that shows or suggests an access point “operable to maintain an association between each of the at least two of the plurality of possible VLANs and the respective network provider.” (emphasis added) The Office Action suggests that *Delaney* shows this element at col. 14, lines 33-44; however, as explained above, nothing within *Delaney* suggests that the access point maintains any type of association between the VLAN identifier and different network service providers. For these reasons, Applicants respectfully submit that independent Claim 177 is also not shown or suggested and that the rejection of that claim should be reconsidered.

With respect to independent Claim 202, therein is recited *inter alia*:

wherein the network routes the data received from the portable computing device through the respective network provider from among the plurality of network providers associated with the determined VLAN tag.

Nothing within *Meier* or *Delaney* or any other prior art, shows or suggests a network that routes through a respective network provider associated with the identified VLAN tag received from the portable computing device. The entire prior art identified a single network provider utilizing the capabilities of multiple VLANs.

With respect to independent Claim 287, therein is recited, *inter alia*:

wherein the wireless access point is operable to maintain associations between the first and second SIDs and a respective plurality of active subscribers of the first and second service providers associated with the first and second VLANs associated with the first and second SIDs, respectively.

Nothing within *Meier* or *Delaney* shows or suggests these elements of independent Claim 287. On page 27 of the December 19, 2005 Office Action, it is argued that *Meier* teaches that a plurality of SIDs is associated with a respective VLANs at col. 7, lines 35-39. However, therein, *Meier* is teaching the GARP protocol. In particular, at the cited section, *Meier* is teaching that an 802.11 infrastructure network transmission may be sent to a unicast BSSID of a parent AP. Applicant's are at a loss to discern how this description suggests that the SSID of the parent AP is in any way associated with a VLAN. *Meier* teaches that each AP is associated with a single BSSID. Further, each AP is associated with a single VLAN (see col. 7, lines 25-27). Therefore, nothing within *Meier* shows or suggests the capability or need for an access point to be operable to recognize and maintain associations between each of two or more of the plurality of possible SSIDs and each respective VLAN, or maintain associations between those SSIDs and the service provider's subscribers. For these reasons, Applicants respectfully request reconsideration of Claim 287.

With respect to independent Claim 288, therein is recited, *inter alia*:

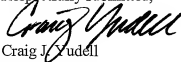
wherein the plurality of access points are maintained by a first network service provider; and wherein the identification information indicates a second network service provider

The Office Action dated December 19, 2005, cited *Delaney* at col.14, lines 33-44 as suggesting these elements of Claim 288. However, as explained above, the cited section of *Delaney* and the remaining description therein merely describes a single NSP running the network. Nothing within *Delaney* shows or suggests that any identification information received from the portable computing device may suggest either a first or a second network provider for the portable device. Consequently, Applicants respectfully submit that the above-cited elements of Claim 288 are in no way shown or suggested by *Meier* or *Delaney* and that the rejection of this claim should be reconsidered.

In summary, Applicant respectfully submits that the prior art does not show or suggest the present invention as claimed in the present application and that the claims should be allowed. Applicants respectfully submit that neither *Meier* nor *Delaney*, separately or in combination, shows or suggests the present invention as claimed in the present application. Applicants request reconsideration of the rejection of the independent Claims in the present application. Moreover, for the reasons given above, Applicants submit that the claims dependent upon the independent claims are similarly not shown or suggested by *Meier* nor *Delaney*, separately or in combination, and that therefore the rejections of those claims should also be withdrawn.

Having now responded to each rejection set forth in the present Office Action, Applicants believe all pending claims are now in condition for allowance and respectfully requests such allowance. Applicant invites the Examiner to contact the undersigned at the below listed number if a telephone conference would expedite prosecution of this application.

Respectfully submitted,



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